



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,299	02/19/2004	Paul T. Corcoran	03-111	4283
7590	04/06/2005		EXAMINER MILLER, TAKISHA S	
Michael B. McNeil Liell & McNeil Attorneys PC P.O. Box 2417 Bloomington, IN 47402			ART UNIT 2855	PAPER NUMBER
DATE MAILED: 04/06/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

E

Office Action Summary	Application No.	Applicant(s)
	10/782,299	CORCORAN, PAUL T.
	Examiner Takisha Miller	Art Unit 2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 14 January 2005.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____

DETAILED Final ACTION

Response to Arguments

1. Applicant's arguments filed 1/14/05 have been fully considered but they are not persuasive.
 - a. On page 1, paragraph 2 of the January 14th 2005 response, Applicant argues with respect to claim 1, that Troxler fails to disclose the quantification of a sinkage deformation interaction between the compactor and the base material. Applicant states that Troxler teaches a methodology for obtaining real time density measurements using a nuclear radiation apparatus mounted to a compactor and an air gap distance from the base material. This argument is not persuasive because Troxler not only provides a readout of the density measurement but also a measurement of the degree of compaction of the base material (see Col. 3, lines 40-48; Col. 4, lines 45-63). Examiner assumes the degree of compaction to be equivalent to a sinkage deformation, as required by Applicant's claims.
 - b. On page 2, paragraph 2 of the January 14th 2005 response, Applicant argues with respect to claims 2-4 that Troxler fails to teach an energy interaction between the compactor and the base material. This argument is not persuasive because Applicant admits that Troxler teaches an energy interaction between the nuclear radiation apparatus and the base material. Therefore, examiner can read the limitation of an energy interaction between the compactor and the base material on Troxler since the radiation apparatus (which is mounted to the compactor) is clearly a part of the compactor.
 - c. On page 3, paragraph 1 of the January 14th 2005 response, Applicant argues that Troxler fails to recognize that the accuracy of their strategy might be improved by

mounting two or more nuclear detection/air gap measurement sensor groups on the compactor. This argument is not persuasive because this reasoning/purpose is not claimed in the instant application; simply the addition of a second set of sensors was claimed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4,6,7,9-15,17,18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Troxler, Sr. et al. (4,979,197)(hereinafter Troxler).
 - a. With respect to claims 1, 6, 7, 11, 12, 17 and 18, Troxler teaches a method of compacting a base material using a compactor (10) comprising a chassis (11), a roller (12,13) rotatably attached to said chassis (11), a computer (20/40/66) carried by said chassis (11), and including a compaction quality control algorithm/backscattering of photons and a compaction quality assurance algorithm/set point; desired target value (Col. 4, line 66- Col. 5, line 12), said compaction quality control algorithm including means for quantifying a sinkage deformation interaction between the base material and the compactor (10), said compaction quality assurance algorithm using data, indicative of material density, from said compaction quality control algorithm (Col. 11, lines 1-8; Col. 4, lines 46-63).

- b. With respect to claims 2 and 13, Troxler teaches a method of compacting a base material using a compactor (10) wherein said interaction includes an energy interaction between said compactor (10) and the base material (Col. 9, lines 4-14).
- c. With respect to claims 3,4,14 and 15, Troxler teaches a method of compacting a base material using a compactor (10) including a first set of sensors (32) being associated with a first compaction quality control algorithm (backscattered photons) and a second set of sensors (35-38) being associated with a second compaction quality control algorithm (air gap; speed of sound) included with said computer (20,40,66)(Figs. 6,7)(Col. 7, line 62- Col. 8, line 28).
- d. With respect to claims 9,10 and 20, Troxler teaches a method of compacting a base material using a compactor (10) including a real time display (42) of compaction quality control data (Col. 2, line 63 – Col.3, line 12)(Col. 8, lines 46-50).

Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 5. Claims 5,8,16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Troxler, Sr. et al. (4,979,197)(hereinafter Troxler) in view of Swanson et al. (6,122,601)(hereinafter Swanson).

a. With respect to claims 5 and 16, Troxler teaches a method of compacting a base material using a compactor (10) but lacks explicitly teaching means for delivering the quality assurance data to a third party inspector. Swanson teaches a means/wireless technology for delivery quality assurance data to a third party /remote computer. Examiner points out the fact that Swanson does not explicitly state the data is delivered to an inspector, however it does not state where the remote computer is located. Therefore, Examiner ascertains that the remote computer could be a third party inspector.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Troxler to include the above limitation as taught by Swanson in order to effectively transmit and display data at a remote location (see Swanson; Col. 10, lines 63-67).

b. With respect to claims 8 and 19, Troxler teaches a method of compacting a base material using a compactor (10) but lacks teaching a compactor position determination algorithm. Swanson teaches a compactor position determination algorithm (Col. 4, lines 47-57). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Troxler to include a compactor position determination algorithm as taught by Swanson in order to more accurately produce a uniform density in pavements (see Swanson; Col. 5, lines 52-64).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Takisha Miller whose telephone number is (571) 272-2184. The examiner can normally be reached on Monday - Friday (7:00 am - 3:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JM

Harshad Patel
HARSHAD PATEL
PRIMARY EXAMINER